



PD01-0535-01

NPOx Decontamination System

Problem

The INEEL's High Level Waste Pretreatment Project needed to reduce liquid wastes generated during equipment decontamination.

Baseline Technology

Conventional decontamination systems.

Innovative Solutions

The INEEL-developed NPOx (nitric acid, potassium permanganate and oxalic acid) Decontamination System is a liquid-based process that attracts and stabilizes radioisotopes and hazardous metals on ion-exchange media and recycles solutions.

Comparison

This system increases decontamination effectiveness and achieves a 90% liquid waste volume reduction.

Benefits

Use of this system is expected to result in a cost avoidance of over \$1.3 million.



HIGH LEVEL WASTE PROGRAM

Project: ID-HLW-101
High Level Waste Pre-Treatment

OST #3137